

EFFECTS OF SUPERVISOR “BIG FIVE” PERSONALITY ON SUBORDINATE ATTITUDES

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ABSTRACT: Leadership theory has long sought to find traits associated with effective leadership. This study uses the five-factor model of personality to investigate the relationship between the personality of supervisors and aggregated attitudes of subordinates. Results from 131 supervisors and 467 subordinates support the notion that supervisor personality is related to subordinate attitudes. Overall, high levels of supervisor Agreeableness, Emotional Stability and Extraversion, plus low levels of Conscientiousness are related to subordinate ratings of satisfaction with supervisor, overall satisfaction, affective commitment and turnover intentions. However, the relationships are somewhat weak and differ across specific criteria. Implications for these findings are discussed.

KEY WORDS: leadership; personality; job satisfaction; supervision.

It is safe to say that most people believe that leaders can have a profound impact on the organizations they lead. Supporting evidence can be found in newspapers' Sports sections where fans and sportswriters call for the replacement of coaches as a cure for the home team's losing record, in the Business press where financial analysts recommend the purchase or sale of stocks on news of CEO transitions, and in the Political press where voters are urged to re-elect or vote out their elected representatives as a way of improving their quality of life. Despite the

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common wisdom regarding the effects of leadership, there has been relatively little empirical evidence to support the relationship between specific leadership styles and group performance. However, some evidence is accumulating to support the significance of leadership style and behaviors on the performance of US presidents (House, Spangler, & Woycke, 1991), as well as aviation teams (Chidester, Helmreich, Gregorich, & Geis, 1991) and military units (Curphy, 1991), but these are more the exception than the rule. In another break with previous empirical research findings, a recent meta-analytic review of personality concluded that the Big Five personality dimensions are quite highly related to successful leadership (Judge, Bono, Ilies, & Werner, 2002a).

In addition to the effects that leaders may have on the effectiveness of groups, leaders may also impact group members' attitudes and feelings. For instance, it may be more fun and satisfying to work for a sympathetic, approachable leader than a person who leads by the use of intimidation and fear. Because of the link between job satisfaction, attitudes and turnover, several authors have noted the key role that leaders play in the retention of key employees (Kaye & Jordan, 1999; Harris & Brannick, 1999). Building on this notion, the current study extends previous research by using the five-factor personality model to measure supervisor traits and evaluate their effects on the aggregated attitudes of the subordinates.

LEADERSHIP THEORY

The trait theory of leadership (a.k.a., the Great Man theory) has been a focus of scientific study for at least a century (e.g., Terman, 1904). Despite the long tradition of this research, the results of studies concerning the relationship between traits and leadership have been inconsistent and disappointing. For instance, House and Aditya stated that "there were few, if any, universal traits associated with effective leadership . . . there developed among the community of leadership scholars near consensus that the search for universal traits was futile" (1997). Also, in a review of leadership research, Lord, De Vader, and Alliger (1986) failed to find strong relationships between the traits of leaders and their effectiveness. However, this review was based on a small number of studies, which posed problems with statistical power. In a different review of leadership research, Bass (1990) considered fifty potentially important traits for leaders. He agreed with previous researchers and concluded that very few personality traits were predictive of leadership effectiveness, although cognitive ability was related to effective leadership.

Despite the fact that the search for non-cognitive traits associated with effective leadership has usually resulted in no positive findings, the ability to predict effective leadership remains crucial for personnel selection and placement. Stable qualities that predict leader performance are needed to identify individuals who will most likely be good leaders in the future. Therefore, studies of "trait" leadership theories persist and remain important, as businesses continue to seek the traits of good leaders.

Transformational leadership provides a slightly different perspective from which leadership effectiveness can be approached. Burns initially introduced this theory in a Pulitzer Prize-winning book (1978), and Bass (1985) later revised this theory. It proposes that transformational leaders are ones who can garner support from followers through inspiration and can create a vision in followers that extends beyond their self-interests. This theory has received considerable empirical support as ratings of transformational leadership predict both subordinate attitudes and measures of leadership effectiveness (Lowe, Kroeck, & Sivasubramaniam, 1996). Although the importance of these types of leadership behaviors has been supported through empirical findings, the extent that these behaviors are predicted by leader traits (e.g., values, ability, personality) is still unclear. In addition, because the transformational leadership theory promotes the idea that these leadership behaviors are universally effective, one could view this as a new type of "trait" theory of leadership.

As an alternative to theories which promote the importance of universal traits and behaviors for leaders, some have proposed that the effectiveness of leader behaviors *depends* on the environment. These "contingency" theories contend that leader behaviors may be helpful or harmful, depending on the characteristics of subordinates and the situation. For instance, the Vroom-Yetton model of supervisory decision-making promotes a careful consideration of situational factors before determining the most effective decision-making strategy (Vroom & Yetton, 1973). Also, the Path-Goal theory calls for leaders to consider the needs of subordinates before deciding on a leadership strategy (House, 1996). These theories provide clear alternatives to trait theories of leadership, proposing that a style of leadership may be effective in some situations, while ineffective in other situations.

PERSONALITY

In Industrial and Organizational psychology, personality research has seen a clear resurgence since the early 1990's (Mount and Barrick,

1998). One likely cause of this resurgence is the popularity and usefulness of the Big Five personality model. In short, this model suggests that five broad factors (Emotional Stability, Extraversion, Openness, Conscientiousness, and Agreeableness) account for most of the variance in personality measures (Wiggins & Trapnell, 1997). This model is important for a few reasons, such as: 1) it permits the sorting of personality characteristics into meaningful categories, 2) it provides a common framework and vernacular for doing research, and 3) it is supposed to cover virtually all of the personality "space."

In particular, well-known meta-analyses from the 1990's used the Big Five framework to help demonstrate that personality is important for I/O psychology (e.g., Barrick & Mount, 1991). Most of these reviews show that Conscientiousness and Emotional Stability consistently predict job performance for all job types (Barrick, Mount, & Judge, 2001). Also, job-specific and criterion-specific relationships between personality and performance were found for other factors (Tett, Jackson, & Rothstein, 1991). In addition, some researchers have suggested that personality is useful for predicting other work-related criteria, like job satisfaction (Goodstein & Lanyon, 1999; Judge, Heller, & Mount, 2002b). However, while strong evidence supports the relationship between personality and performance, the small magnitude of the relationship has caused some researchers to question the actual utility of personality for predicting work performance (Hurtz & Donovan, 2000).

One issue that may lead to the weakness of relationships between personality and job performance is the relatively dominant situational forces in the workplace. In these "strong" situations, individuals do not have much latitude to choose behaviors; instead, the situation makes behavior consistent among people. However in "weak" situations, individuals have the latitude to choose behaviors. Based on this framework of situations, it is clear that personality may predict behavior in weak situations (where there is individual variability) but not strong situations (Mischel, 1977). To support this distinction, a study by Barrick and Mount (1993) showed that personality predicts performance better in jobs with high levels of autonomy.

Despite the generally positive relationship between personality and job performance, empirical evidence for this relationship in leadership/supervisory positions has been lacking (Barrick & Judge, 2001). However, it seems likely that the tasks and responsibilities for leadership positions would be related to personality traits. For instance, because leadership responsibilities are highly interpersonal in nature, and their work is carried out with high autonomy (i.e., weak situations), it seems reasonable that personality assessment would predict leader performance. Despite the general lack of evidence to support the relationship

between personality and leader effectiveness, Kenny and Zaccaro (1983) reported that between 48% and 82% of variance in performance during a leaderless discussion group was due to "personality" ratings. While this finding appears contradictory to previous research, the inconsistencies may stem from limited research designs and relatively inadequate construct measurement in most previous studies. Therefore, further study is clearly warranted.

Some recent research has provided evidence to support the personality-performance relationship in leadership positions. For instance, Judge and Bono (2000) demonstrated that transformational leadership is predicted by several of the Big Five personality traits. Specifically, this study showed that Extraversion, Openness, and Agreeableness predicted subordinate ratings of transformational leadership. Additionally, this study demonstrated that personality factors were predictive of supervisor ratings of leader effectiveness.

In addition, the five-factor model of personality directly addresses a problem from previous reviews of leadership (e.g., Bass, 1990)—too many traits were reviewed in order to make generalized conclusions. Previously, researchers have lamented this problem, saying "the labeling dilemma made it almost impossible to find consistent relationships between personality and leadership even when they really existed" (Hughes, Ginnett, & Curphy, 1998). Based on this problem, a recent meta-analysis of 73 samples examined the relationship between personality and leader emergence/effectiveness (Judge, et al., 2002a). In this quantitative review, personality variables were sorted into the Big Five dimensions. In terms of the criterion, studies were coded as representing "leader emergence" or "leadership effectiveness." Leadership effectiveness was typically measured with ratings from supervisors, peers, and/or subordinates; importantly, subordinate *attitudes* were never used as a measure of leadership effectiveness.

In general, findings showed that personality (at the Big Five level) predicted both leader effectiveness and leader emergence. Specifically, four of the five general personality dimensions predicted leader emergence and/or leader effectiveness (Emotional Stability, Extraversion, Openness and Conscientiousness). Agreeableness was the only dimension that did not show a relationship with either leader effectiveness or emergence. Based on a regression of overall leadership on the Big Five traits, these authors estimated that personality accounts for almost 25% of the variance in leadership. The results of this quantitative review were quite surprising, given the history of the research involving personality and leadership. However, the results make sense given the nature of the traits and research involving the prediction of other work-related constructs by personality.

ISSUES WITH LEADERSHIP RESEARCH

One of primary difficulties in conducting empirical research that investigates the predictors of good leadership lies in the problem of measuring leader effectiveness. After a review of the research and in response to this difficulty, Hogan, Curphy and Hogan (1994) concluded that there is no single best way to assess leader effectiveness. Instead, there are many ways to appropriately measure the performance of a leader or supervisor. Some researchers have used objective measures of team performance as an index of leadership performance, while others have used ratings from multiple sources (e.g. 360° feedback), self-ratings, or assessment centers to capture the performance of leaders. Each of these indices can provide unique and important information for the study of leaders.

In addition to the more traditional methods of measuring leader performance, some researchers have suggested examining subordinate behaviors and attitudes (Bass, 1990). Furthermore, Luthans (1988) contended that managers can only be considered truly effective if they have satisfied, committed subordinates. In addition, the strong economy of recent years has forced organizations and supervisors to view their employees as volunteers, and to place greater emphasis on employee attitudes and retention. Therefore, both employee attitudes and turnover should be viewed as legitimate concerns for organizations and researchers. To further illustrate the potential effects of leaders on subordinates, Hogan, Raskin and Fazzini (1990) noted that between sixty and seventy-five percent of employees report their immediate supervisor as the most stressful part of their jobs. This shows that supervisors have a large effect on subordinate attitudes, in general.

One of the problems associated with using subordinate attitudes as an index of leadership effectiveness concerns the level of analysis. Since many leadership theories propose that leaders impact *group* success, rather than the success (or satisfaction) of a particular individual, the subordinate level of analysis is not appropriate (Kozlowski & Klein, 2000). In other words, it probably would not be appropriate to analyze the effects of supervisor traits on individual subordinate behaviors and attitudes, if multiple subordinates share the same supervisor. Instead, assessment should occur at the group/aggregate level. For instance, if an organization has ten supervisors who each have ten subordinates, an analysis of supervisor traits on individual subordinate outcomes would not be correct. Rather, it would be better to study the effects of each supervisor's traits on the outcomes of each *group* of ten subordinates. As is clear in this example, conducting research using groups or organizations as the unit of analysis is difficult because requisite power is difficult to attain (i.e., many groups or organizations are needed).

CURRENT STUDY

Hypothesis 1. Supervisor personality (overall) will show stronger relationships with subordinate “satisfaction with supervision” than the other subordinate attitudes (i.e., total job satisfaction, affective organizational commitment and turnover intention).

The reason for this prediction is that satisfaction with supervision is more “proximal” to the supervisor than the other dependent variables. Therefore, the characteristics of the supervisor would probably directly affect subordinates’ satisfaction with supervision; however, supervisor characteristics may only indirectly affect the other job attitudes.

Hypothesis 2. Supervisor Agreeableness, Extraversion and Emotional Stability will be positively related to subordinate attitudes.

Agreeable individuals tend to be nicer and more trusting of others; further, a meta-analytic review has shown that agreeable workers tend to make better “teammates” (Barrick, et al., 2001). Therefore, acting in this agreeable way with subordinates may improve their job-related attitudes. Extraverted individuals tend to be more sociable, dominant, and positive than others. Also, some research has shown that a higher level of Extraversion is a good predictor of performance in situations involving interpersonal relations (Mount, Barrick, & Stewart, 1998). Given the interpersonal nature of supervisory positions, we predict that Extraversion will be related to subordinate attitudes. Emotionally stable individuals have lower levels of anxiety, hostility and depression. This characteristic may be especially important for supervisors, as emotionally stable individuals may be less prone to such behaviors as losing their temper when dealing with subordinates. Because of this emotional control, their subordinates may have better work-related attitudes.

Conscientiousness and Openness are personality traits that are related to both leader emergence and effectiveness (Judge, et al., 2002a); however, we do not expect them to be related to subordinate attitudes. Conscientious individuals are dependable, achievement oriented and planful. While this trait may be positively related to leadership *effectiveness* (as well as individual performance), it may not be related to subordinate attitudes, because highly Conscientious supervisors may be overbearing and “nit-picky” and those with low Conscientiousness may be unpredictable. Open individuals are creative, unconventional and broad-minded. Because these traits do not seem relevant for interpersonal relationships, we expect to find no relationship between supervisor Openness and subordinate attitudes.

The present study investigates the relationship between supervisor

personality and the work-related attitudes of subordinates. We are especially interested in determining if leader personality (as measured by the Big Five) predicts *aggregate* subordinate levels of total job satisfaction, satisfaction with supervision, affective organizational commitment and turnover intention.

METHOD

Participants and Procedure

In March and April of 2001, all employees from a US division of an international human capital management company were sent invitations to complete three Internet-based assessments. The first inventory included an extended version of the CFI Personality Inventory (with 485 personality items). About three weeks after sending invitations to complete the personality inventory, employees were sent invitations for the remaining batteries. The two follow-up batteries included the criterion scales that are used in this study. Also, in one of the follow-up surveys, respondents were asked to indicate the name of their direct supervisor; this information was used to determine with which supervisor the subordinate would be matched for this study.

Participation was completely voluntary and the results were kept confidential. The overall response rate for the personality inventory was about 80%, and the response rate was approximately 50% for the remaining two surveys. A total of 685 employees completed at least one of the assessments. Data from 484 of these employees were used in this study. Most of the participants were employed in sales, recruiting, accounting, or support positions. Thirty-seven percent of these participants were below 30 years of age, 37% were between 30 and 39, 17% between 40 and 49, and 9% were 50 or older. Also, 61% of the participants were female, and 83% were Caucasian. Because personality measures were needed for each supervisor listed by subordinates and at least one subordinate was needed to provide criterion data for each supervisor, matched data was available for 131 supervisors (with a total of 467 subordinates). The demographic breakdown of the supervisors was similar to the rest of the sample.

Measures

Personality. The CFI Personality Inventory was used to assess the Big Five dimensions of personality (Smith & Canger, 2002). This scale was developed with items from the AB5C scale from the International Personality Item Pool website (IPIP, 2001; Goldberg, in press). Participants in this study completed 485 personality items using a six-point Likert-

type scale. The current study actually took place during the research process for developing the CFI Personality Inventory. Therefore, only the 60 items which are included in the final version of the CFI were used in the current study (items which are not used in the CFI were not used in the current study). This scale was scored on the Big Five dimensions, with 12 items assessing each dimension: Emotional Stability, Extraversion, Openness, Agreeableness, and Conscientiousness. Additional research has shown that all scales have good internal reliability, and this was also shown in the current study (α 's above .80). Previous research has also demonstrated strong evidence for construct validity of the CFI Personality Inventory (Smith & Canger, 2002). For instance, a longitudinal study revealed that obtained correlations between the NEO PI-R (Costa & McCrae, 1991) and the CFI ranged from .55 to .75. When these correlations were corrected for test-retest reliability, they increased to a range from .75 to unity. Therefore, the authors concluded that the CFI assesses the Big Five dimensions very similarly to the NEO.

Job Satisfaction. The Job Satisfaction Survey (Spector, 1997) was used to assess both overall job satisfaction and satisfaction with supervision (a facet of overall job satisfaction). Satisfaction with supervision was computed from the mean of the four-item supervisor facet scale ($\alpha = .85$). Overall job satisfaction was computed from the mean of all nine facets (36 items) measured in the JSS ($\alpha = .92$). In general, average ratings from this sample were substantially higher than normative ratings of JSS scores. For both scales, higher scores are indicative of greater satisfaction.

Affective Organizational Commitment. Eight items were used to assess organizational commitment; these items were designed to be very similar to items from Meyer and Allen's (1997) affective commitment scale ($\alpha = .83$). Sample items include "I believe the organization's problems are my own" and "I have no emotional attachment to the organization." Mean scores were used for subsequent analyses, with higher scores indicative of greater commitment to the organization.

Turnover Intention. A five-item scale was used to assess intentions to leave the organization ($\alpha = .91$). Sample items include "I doubt that I will be here in 3 months" and "I am presently looking for another organization to work in." The mean of the items was used to represent individuals' turnover intention, with higher scores indicating a greater propensity to leave the organization.

RESULTS

For each supervisor, the mean number of subordinates who completed the attitude assessments was 2.7, with a range from 1 to 15 (me-

dian = 2; mode = 1). If a supervisor had multiple subordinates provide criterion responses, those data were combined and averaged. Prior to aggregating these responses across subordinates, intraclass correlation coefficients (ICC1) were computed to estimate the extent to which variance is explained by "group" membership (Bliese, 2000). In this analysis, group membership refers to being subordinates of the same supervisor and does not imply that these individuals were members of an actual "group."

Results of these analyses indicate moderate agreement in work-related attitudes for individuals who report to the same supervisor. ICC values are .11 (turnover intention), .17 (total job satisfaction), .21 (satisfaction with supervision) and .26 (affective commitment). This indicates that between 11 and 26 percent of the variation in work-related attitudes can be attributed to the supervisor (or some other aspect of the "shared situation" of the group). Previous research has shown that the range of the current results is similar in magnitude to other group-level findings which have been aggregated (James, 1982; Bliese, 2000). Therefore, further analyses that are based on aggregate data make sense. Interestingly, the greatest inter-rater agreement is found for affective commitment, and not satisfaction with supervision (which might have been expected).

To evaluate Hypothesis 1, we regressed each of the four criteria separately on to the set of five supervisor personality factors. Overall, the Big Five personality factors of supervisors predict average satisfaction with supervision ($R^2 = .102$). However, the set of five personality variables was not a significant predictor of the other three dependent variables (see Table 1). Although statistically significant differences in prediction of the dependent variables are not evaluated, results generally support Hypothesis 1. Therefore, we concluded that the personality of the supervisor has a greater effect on subordinate satisfaction with supervision than the more general work-related attitudes.

Hypothesis 2 was evaluated with both multiple regression equations and the zero-order correlations (Tables 1 and 2). Overall, results show some support for each of the three sub-hypotheses. Specifically, supervisor Agreeableness (hypothesis 2a) has a moderately positive relationship with satisfaction with supervisor ($r = .26$). Extraversion (hypothesis 2b) is negatively related to turnover intentions ($r = -.24$) indicating that higher scores on supervisor Extraversion are associated with lower levels of subordinate turnover intention. Finally, Emotional Stability (hypothesis 2c) is positively correlated with supervision satisfaction ($r = .17$), indicating that supervisors with higher levels of Emotional Stability have subordinates who are happier with the supervision. Although these findings were somewhat expected, they were also rather surprising because the relationships between supervisor personality and subordinate attitudes differ greatly across the different criteria.

Table 1
Multiple Regression Analyses of Subordinate Attitudes
on Supervisor Personality

	Satisfaction with Supervision	Total Job Satisfaction	Affective Commitment	Turnover Intention
Emotional Stability	.140	.050	.122	-.001
Extraversion	-.003	.098	.080	-.231*
Openness	-.122	-.072	.046	-.046
Agreeableness	.298*	.227*	-.076	-.034
Conscientiousness	-.105	-.186†	-.204*	.125
R	.320*	.234	.262	.263
R ²	.102	.055	.069	.069
Adjusted R ²	.066	.017	.032	.032

*Significant at $p < .05$.

† p between .05 and .10.

N = 130.

Table 2
Correlations of Supervisor Personality Dimensions and Subordinate Attitudes

	1	2	3	4	5	6	7	8	9
1. Emotional Stability	(.83)								
2. Extraversion	0.12	(.87)							
3. Conscientiousness	0.25*	0.05	(.82)						
4. Openness	0.23*	0.28*	0.18*	(.82)					
5. Agreeableness	0.28*	-0.05	0.47*	0.21*	(.80)				
6. Satisfaction with Supervision	0.17*	-0.04	0.05	-0.05	0.26*	(.85)			
7. Total Job Satisfaction	0.06	0.06	-0.08	-0.02	0.13	0.59*	(.92)		
8. Affective Commitment	0.07	0.10	-0.20*	0.04	-0.13	0.18*	0.45*	(.83)	
9. Turnover Intention	-0.02	-0.24*	0.09	-0.10	0.03	-0.26*	-0.50*	-0.65*	(.91)

Internal reliability estimates are presented in parentheses along the diagonal.

N = 131 - 158.

*Significant at $p < .05$.

Regression results support most of the findings from the zero-order correlations. The difference between the two types of analyses is that multiple regression equations *simultaneously* assess the effects of all five personality variables. Therefore, only unique variance for each independent variable is used for prediction. Since the correlations between personality variables are rather low (see Table 2), the consistency between analyses is expected. In addition to the findings which were previously discussed, results show that supervisor Conscientiousness is negatively related to subordinate job satisfaction. In other words, subordinates tend to have higher affective commitment when the supervisor is lower in Conscientiousness. This negative relationship, while not surprising, was not hypothesized.

DISCUSSION

This study provides new and compelling evidence in support of the notion that supervisor personality is related to the attitudes of their subordinates. This extends the previous research on the predictors of leaders effectiveness because a different type of leadership measure was considered. Overall, subordinates had more positive job-related attitudes when supervisors had higher levels of Emotional Stability, Extraversion, and Agreeableness, but lower levels of Conscientiousness. Although the magnitude of prediction across all criteria was rather small, stronger relationships were found between supervisor personality and subordinate satisfaction with supervision (when compared to any of the other criterion measures). Also, the specific personality predictors of subordinate attitudes varied across the various criteria. Supervisor Agreeableness and Emotional Stability were positively related to satisfaction with supervision. Supervisor Extraversion was negatively related to subordinate turnover intentions, and supervisor Conscientiousness was negatively related to subordinate affective commitment.

Given the relatively high intercorrelations among the attitudinal variables and their conceptual similarity, we expected that a given significant relationship between one supervisor personality trait (e.g., Extraversion) and one subordinate attitude variable (e.g., intention to turnover) would also be found in the relationships between that trait and the other subordinate attitudes (e.g., between Extraversion and job satisfaction). This pattern was not generally found in the present study.

While the subordinate attitudes are somewhat similar, they were included in the study because they were designed to measure different (though interrelated) constructs. Plausible reasons for the pattern of relationships found in the current study can be derived from a closer examination of the differences between the attitude constructs. If one thinks

about satisfaction with supervision, and the significant findings between that construct and supervisors' Agreeableness and Emotional Stability, it is quite plausible that having an agreeable supervisor who does not "rant and rave" would lead an employee to have a more positive attitude toward that supervisor. However, that stable, agreeable supervisor is only one factor in that same employee's overall job satisfaction, affective organizational commitment, and intention to stay or leave the organization. Overall job satisfaction includes satisfaction with other facets, such as organizational practices around pay and promotions (Spector, 1977). Affective commitment could be impacted by things outside the employee's relationship with his/her current supervisor, such as history with the organization, relationships with peers and previous/other supervisors, rewards tied to organizational performance. Finally, research on employee turnover and intention to leave show that these variables are affected by factors both outside the supervisor-employee relationship, as well as outside the organization itself, such as the availability of other/better jobs (Hom, Caranikas-Walker, Prussia, and Griffeth, 1992).

It is important to note that these results are not meant to imply that this is the personality profile of a *productive* supervisor. In fact, the negative relationship between Conscientiousness and subordinate attitudes may represent the profile of a less productive, but popular supervisor. For instance, the Judge et al. meta-analysis (2002a) demonstrated that leader Agreeableness was not related to either leader effectiveness or leader emergence, while leader Conscientiousness was positively related to leader effectiveness. The current findings extend the previous research on leadership by considering a different type of leadership measure. Because this measure of leader effectiveness was used, we found new evidence which showed that high Agreeableness may be beneficial for leaders. Indeed, subordinate attitudes are important variables to predict in their own right. For instance, Luthans (1988) contends that subordinate attitudes are quite important and a good measure of a supervisor's true effectiveness.

Strengths, Weaknesses, and Future Research

An obvious strength of this study lies in the fact that ratings were not obtained from the same source: supervisors contributed ratings of personality and subordinates contributed measures of work-related attitudes. This eliminates common method variance as an alternative explanation for the results. Further, all measures had high internal reliability, thereby eliminating differential reliability as a cause of some of the results. Clearly, additional research is needed to further explore the relationship between supervisor personality and subordinate attitudes. The relatively small sample size (131 supervisors) and limited scope of job

titles (mainly sales and support) may limit the generalizability of the findings. Also, the fact that three of the four multiple regression analyses were not statistically significant is troublesome. This raises the possibility that type I errors were the cause of the positive findings. However, since the results did support the hypotheses (to some extent), we are confident that the results can be replicated.

One direction of future research may involve the "fit" between supervisor and subordinate personality. For example, a study could assess the independent effects of both supervisor and subordinate personality on subordinate attitudes. Then, after accounting for these direct effects, the interaction between the two personalities (or "fit") could be assessed. Polynomial Regression Analysis would be an appropriate technique to evaluate this type of research in a dataset where all of the subordinates had different supervisors (see Edwards (1994) for an introduction to this technique). Alternatively, hierarchical linear modeling could be used to analyze a dataset where groups of subordinates shared supervisors, because HLM allows researchers to model the effects of group-level variables on individual-level relationships (Vancouver, Millsap, & Peters, 1994). Also, future studies could incorporate explanatory variables into their designs. For instance, the relationship between supervisor personality and subordinate attitudes may be explained by the perceived climate or culture of the organization. As an example, agreeable supervisors may have more satisfied subordinates because these supervisors foster a climate that reduces work-family conflict.

Further, the personality of supervisors may be demonstrated by various leadership behaviors. For instance, agreeable supervisors may be more prone to entrust their subordinates with more authority and responsibility; or an extraverted supervisor may take the time to share company news and future plans with subordinates. An example of this type of research is a study by Cable and Judge (2002) which showed that the use of various influence tactics was explained by supervisor personality. A similar study concerning personality and supervisory practices (e.g., delegation) may help to explain the results from the current study.

In addition, the relationship quality between the subordinates and supervisors, or the transformational leadership behavior of the supervisors may lead to the observed relationship between supervisor personality and subordinate attitudes (Gerstner & Day, 1997; Lowe et al., 1996). In particular, the relationship between transformational leadership and the Five-Factor personality model has been addressed in one previous study (Judge & Bono, 2000). The results of that study support the notion that transformational leadership plays an important role in explaining the relationship between supervisor personality and leadership effectiveness. In line with the Judge and Bono study, additional research should

incorporate constructs that are derived from current theories of leadership. This addition would help us better understand the process of how supervisor personality influences subordinate attitudes.

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